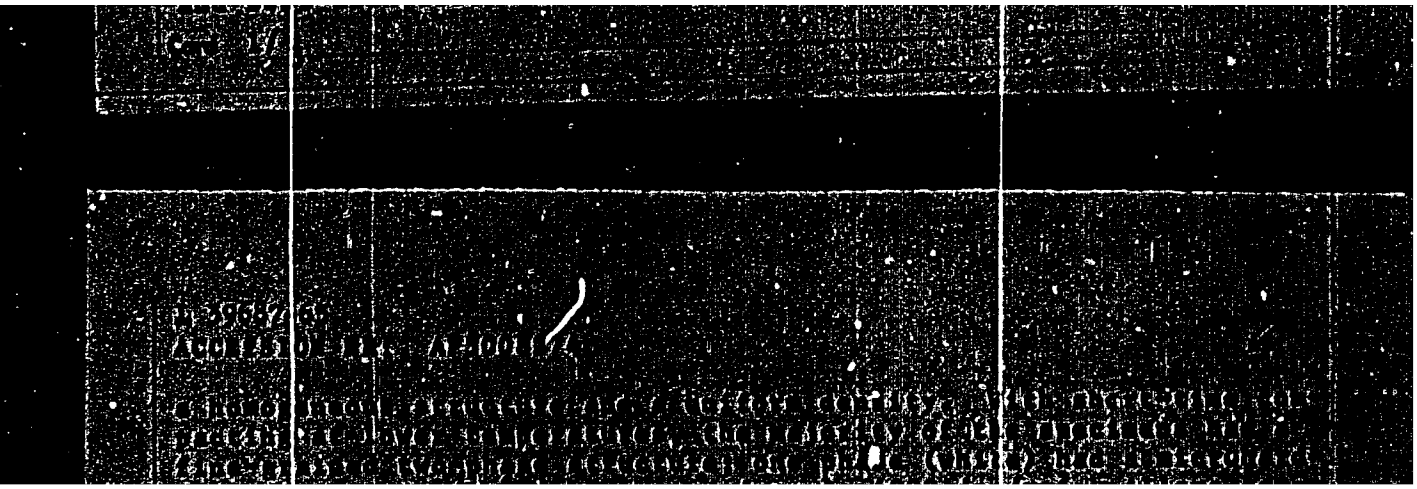
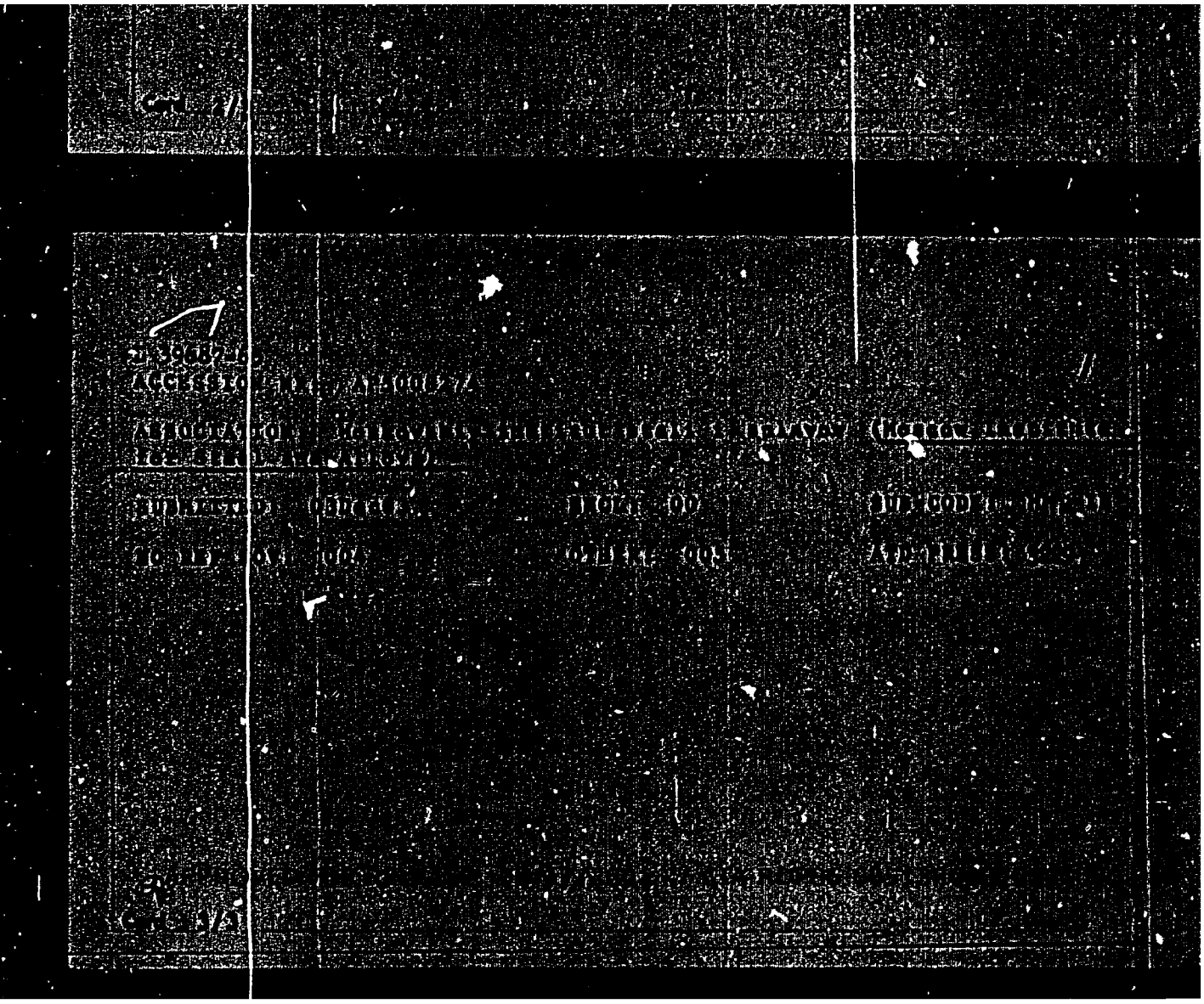




D'YACHKOV, M. and KIPARISOV, V.

"Accounting of Capital Constructions", published by State Publishers of Planning Literature, Moscow, 1948.

[illegible], M.S., kand. tekhn. nauk; [illegible]
[illegible], inzh.; [illegible], [illegible]; [illegible], [illegible], [illegible]

Effect of certain factors on the process of [illegible] pipe. [illegible] no.12:114-116 '64.

KIPARISSOVA, L. D. PA 4T106

USSR/Geology 1945

"A Contribution to the Stratigraphy of the Lower Triassic of the South-Ussuri Coastal Region (Primorskiy Kray)," L. D. Kiparissova, 3 pp

"CR Acad Sci" Vol XLIX, No 6

Geological study of coastal regions, in particular the east-west coasts of Ussuri Bay, Putiatin Island, Abrek Bay of Strelok Strait, and the west coast of Amur Bay

4T106

KIPARISOVA, L.D.; SEMENOVA, M.V., redaktor; MANINA, M.P., tekhnicheskiy redaktor

[New Lower Jurassic fauna of Priamurye] Novaia nizhneiurskaia fauna Priamur'ia. Moskva, Gos. izd-vo geol. lit-ry, 1952. 46 p.(MLRA 8:6)
(Amur River Valley--Geology, Stratigraphic)

KIPARISOVA, L. D.

PA 241T47

USSR/Geophysics - Triassic Fauna Nov/Dec 52

"The Presence of Triassic Deposits in Tuarkyr," L. D. Kiparisova and V. S. Kurbatov

"Iz Ak Nauk SSSR, Ser Geol" No 6, pp 76-84

Describe the lower Triassic fauna, first discovered in 1950 by V. S. Kurbatov and M. P. Sukacheva in Tuarkyr, which makes it possible to compare, according to their content of ammonites of the Doricranite species, the lower Triassic deposits with the lower Triassic of the Mangishlak peninsula and Mt Bordo.

241T47

VOLKOVA, N.S.; KIPARISOVA, L.D., redaktor; SPIRINA, N.I., redaktor; GUROVA, O.A., tekhnicheskiy redaktor.

[Field atlas of characteristic fauna complexes of Tertiary deposits of Central Ciscaucasia] Polevoi atlas kharakternykh kompleksov fauny tretichnykh otlozhenii Tsentral'nogo Predkavkaz'ia. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geologii i okhrane nedr, 1955. 161 p. (MLRA 8:11)
(Caucasus, Northern--Palentology)

KIPARISOVA, L.D.; POPOV, Yu.N.

Separation of the lower Triassic system into divisions. Dokl. AN SSSR 109 no.4:842-845 Ag 1956. (MLRA 9:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut. Predstavleno akademikom D.V. Nalivkinym.
(Geology, Stratigraphic)

VERESHCHAGIN, V.N., otv.red.; KRASNYY, L.I., otv.red.; VLASOV, G.M., red.; ZOLOTOV, M.G., red.; ZHAMOYDA, A.I., red.; KIPARISOVA, L.D., red.; MODZALEVSKAYA, red.; ONIKHIMOVSKIY, V.V., red.; SAVRASOV, N.P.; CHEMEKOV, Yu.F.; SKVORTSOV, V.P., red.; AVERKIYEVA, T.A., tekhn.red.

[Resolutions of the Interdepartmental Conference on the Elaboration of Standard Stratigraphic Systems for the Far East] Resheniia soveshchaniia Mezhvedomstvennogo soveshchaniia po razrabotke unifitsirovannykh stratigraficheskikh skhem dlia Dal'nego Vostoka. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1958. 51 p. (MIRA 12:3)

1. Mezhvedomstvennoye soveshchaniye po razrabotke unifitsirovannykh stratigraficheskikh skhem dlya Dal'nego Vostoka, Khabarovsk, 1956.
2. Predsedatel' Orgkomiteta Mezhvedomstvennogo soveshchaniya po razrabotke unifitsirovannykh stratigraficheskikh skhem dlya Dal'nego Vostoka (for Krasnyy). (Soviet Far East--Geology, Stratigraphic)

KIPARISOVA, L.D.

Comparison of the Triassic stratigraphy of the countries around the Pacific Ocean. Biul.VSEGEI no.1:27-40 '58. (MIRA 14:5)
(Pacific area—Geology, Stratigraphic)

KIPARISOVA, L.D.

ANIKIYEV, N.P., glavnyy red.; BISKE, S.F., red.; BOBYLEVSKIY, V.I., red.; VAS'KOVSKIY, A.P., red.; VERESHCHAGIN, V.N., red.; DRABKIN, I.Ye., red.; YEVANGULOV, B.B., red.; YEFIMOVA, A.F., red.; ZIMKIN, A.V., red.; LARIN, N.I., red.; LIKHAREV, B.K., red.; MENNER, V.V., red.; MIKHAYLOV, A.F., red.; NIKOLAYEV, A.A., red.; POPOV, G.G., red.; POPOV, Yu.N., red.; SAKS, V.N., red.; SEMEYKIN, A.I., red.; SIMAKOV, A.S., red.; TITOV, V.A., red.; SHILO, N.A., red.; EL'YANOV, M.D., red.; YAKUSHEV, I.R., red.. V redaktirovanii prinimali uchastiye: ANDREYEVA, O.N., red.; BAYKOVSKAYA, T.N., red.; BOLKHOVITINA, N.A., red.; BORSUK, M.O., red.; VASIL'YEV, I.V., red.; VASILEVSKAYA, N.D., red.; VOYEVODOVA, Ye.M., red.; YEVSEYEV, K.P., red.; KIPARISOVA, L.D., red.; KRASNYY, L.I., red.; KRISHTOPOVICH, L.V., red.; KULIKOV, M.V., red.; LIBROVICH, L.S., red.; MARKOV, F.G., red.; MOLZALEVSKAYA, Ye.A., red.; NIKIFOROVA, O.I., red.; OBUT, A.M., red.; PCHELINTSEVA, G.T., red.; RZHONSNITSKAYA, M.A., red.; SEDOVA, M.A., red.; STEPANOV, D.L., red.; TIMOFEYEV, B.V., red.; KHUDOLEY, K.M., red.; CHEMEKOV, Yu.F., red.; CHERNYSHEVA, N.Ye., red.. DERZHAVINA, N.G., red.izd-va; GUROVA, O.A., tekhn.red.

(Continued on next card)

ANIKEYEV, N.P.--(continued) Card 2.

[Decisions of the Interdepartmental Conference on the Unified Stratigraphic Columns of the Northeastern Part of the U.S.S.R.] Reshenila Mezhvedomstvennogo soveshchaniia po razrabotke unifitsirovannykh stratigraficheskikh skhem dlia Severo-Vostoka SSSR, Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1959. 65 p. (MIRA 13:2)

1. Mezhvedomstvennoye soveshchaniye po razrabotke unifitsirovannykh stratigraficheskikh skhem dlya Severo-Vostoka SSSR, Magadan, 1957. (Soviet Far East--Geology, Stratigraphic)

ORLOV, Yu.A., glavnyy red.; MARKOVSKIY, B.P., zam.glavnogo red.; RUZHENTSEV, V.Ye., zamestitel' glavnogo red.; SOKOLOV, B.S., zamestitel' glavnogo red.; EBERZIN, A.G., otv.red.toma; KIPARISOVA, L.D., red.; SHIMANSKIY, V.N., red.; VAKHRAMEYEV, V.A., red.; GEKKER, R.F., red.; GROMOVA, V.I., red.; DAVITASHVILI, L.Sh., red.; KRYMGOL'TS, G.Ya., red.; LUPPOV, N.P., red.; OBRUCHEV, D.V., red.; OVECHKIN, N.K., red.; POKROVSKAYA, I.M., red.; PCHELINTSEV, V.F., red.; RADCHENKO, G.P., red.; RAUZER-CHERNOUSOVA, D.M., red.; RODENDORF, B.B., red.; ROZHDESTVENSKIY, A.K., red.; FLEROV, K.K., red.; FURSENKO, A.V., red.; KHABAKOV, A.V., red.; CHERNYSHEVA, N.Ye., red.; KORDE, K.B., red.izd-va; POLENOVA, T.P., tekhn.red.

[Fundamentals of paleontology; reference book in 15 volumes for paleontologists and geologists of the U.S.S.R.] Osnovy paleontologii; spravochnik dlia paleontologov i geologov SSSR v piatnadtsati tomakh. Moskva, Izd-vo Akad.nauk SSSR. Vol.3. [Mollusks: Loricata, Bivalvia, Scaphopoda] Molliuski - panteirnye, dvustvorchatye, lopatonogie. Otvet.red. A.G.Eberzin, 1960. 299 p.
(Mollusks, Fossil) (MIRA 14:1)

MARKOVSKIY, B.P., otv.red.; ZANINA, I.Ye., red.; KIPARISOVA, L.D., red.; MIKLUKHO-MAKLAY, K.V., red.; POKROVSKAYA, I.M., red.; RALCHENKO, G.P., red.; GORSKHOVA, T.A., red.izd-va; GUROVA, O.A., tekhn.red.

[New species of ancient plants and invertebrates of the U.S.S.R.] Novye vidy drevnikh rastenii i bespozvonochnykh SSSR. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr. Pt.2. 1960. 521 p. (MIRA 13:10)

1. Leningrad. Vsesoyuznyy geologicheskiy institut.
(Invertebrates, Fossil)

MARKOVSKIY, B.P., otv.red.; ZANINA, I.Ye., red.; KIPARISOVA, L.D., red.; MIKLUKHO-MAKLAY, K.V., red.; POKROVSKAYA, I.M., red.; RADCHENKO, G.P., red.; ROSSOVA, S.M., red.izd-va; GUROVA, O.A., tekhn.red.

[New species of ancient plants and invertebrates of the U.S.S.R.] Novye vidy drevnikh rastenii i bespozvonochnykh SSSR. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr. Pt.1. 1960. 611 p. (MIRA 13:12)

1. Leningrad. Vsesoyuznyy geologicheskiy institut. (Paleontology)

BOBKOVA, Natal'ya Nikolayevna; KIPARISOVA, L.D., nauchnyy red.; SEGAL', Z.G., vedushchiy red.; SAFRONOVA, I.M., tekhn.red.

[Late Cretaceous oysters in the Tajik Depression] Pozdnemelovye ustritsy Tadzhikskoi depressii. Leningrad, Gostoptekhizdat, 1961. 139 p. (Leningrad. Vsesoiuznyi geologicheskii institut. Trudy, vol.50). (MIRA 16:3)

(Tajik Depression--Oysters, Fossil)

POPOV, Yu.N.; KIPARISOVA, L.D., starshiy nauchnyy sotrudnik, kand.geol.-mineral.nauk, red.; ABRAMOVICH, P.L., red.izd-va; IVANOVA, A.G., tekhn.red.

[Triassic Ammonoidea of the northeastern U.S.S.R.; paleontological basis of the stratigraphy of Triassic sediments in the northeastern U.S.S.R.] Triasovye ammonoidei Severo-Vostoka SSSR; paleontologicheskoe obosnovanie stratigrafii triasovykh otlozhenii Severo-Vostoka SSSR. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geologii i okhrane nedr, 1961. 178 p. (Leningrad. Nauchno-issledovatel'skii institut geologii Arktiki. Trudy, vol. 79). (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut (for Kiparisova).
(Soviet Far East--Geology, Stratigraphic) (Ammonoidea)

KIPARISOVA, L.D.

Notes on Late Triassic bivalve "Anaucella" ussuriensis (Vor.).
Inform.sbor.VSEGEI no.47:97-103 '61. (MIRA 15:4)
(Lamellibranchiata, Fossil)

KIPARISOVA, Lyubov' Dmitriyevna; POPOV, Yu.N., nauchnyy red. MANKUSHIN, V.A., tekhn.red.

[Paleontologic basis for the stratigraphy of Triassic sediments of the Maritime Territory] Paleontologicheskoe obosnovanie stratigrafii triasovykh otlozhenii Primorskogo kraia. Leningrad. Otdel nauchno-tekhn. informatsii VSEGEI. Pt.1: [Cephalopoda] Golovonogie molliuski. 1961. 277 p. (Leningrad, Vsesoiuznyi geologicheskii institut. Trudy, vol.48). (MIRA 14:12)
(Maritime Territory--Cephalopoda, Fossil)

KIPARISOVA, L.D.; AZARYAN, N.R.

New genus Nairites of Late Triassic Ceratites in the Armenian S.S.R. Paleont.zhur. no.1:53-57 '63. (MIRA 16:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut, Leningrad i Institut geologicheskikh nauk AN Armyanskoy SSR, Yerevan.
(Armenia—Ceratitidae, Fossil)

NALIVKIN, D.V., glav. red.; VERESHCHAGIN, V.N zam. glav. red.; MENNER, V.V., zam. glav. red.; OVECHKIN, N.K., zam. glav. red.[deceased]; SOKOLOV, B.S., zam. glav. red.; SHANTSER, Ye.V., zam. glav. red.; KELLER, B.M., otv. red. toma ; MODZALEVSKAYA, Ye.A., red.; CHUGAYEVA, M.N., red.; GROSSGEYM, V.A., redaktor; KIPARISOVA, L.D., redaktor; KOROBKOV, M.A., red.; KRASNOV, I.I., red.; KRYMGOL'TS, T.Ya., red.; LIBROVICH, L.S., red.; LIKHAREV, B.K., red.; LUPPOV, N.P., red.; NIKIFOROVA, O.I., red.; OBRUCHEV, S.V., red.; POLKANOV, A.A., red.[deceased]; RENGARTEN, V.P., red.; STEPANOV, D.L., red.; CHERNYSHEVA, N.Ye., red.; SHATSKIY, N.S., red. [deceased]; EBERZIN, A.G., red.; GOROKHOVA, T.A., red.izd-va; GUROVA, O.A., tekhn. red.

[Stratigraphy of the U.S.S.R. in fourteen volumes] Stratigrafiia SSSR v chetyrnadtsati tomakh. Moskva, Gosgeoltekhizdat. Vol.2. [Upper Pre-Cambrian] Verkhnii dokembrii. Otv. red. B.M. Keller. 1963. 716 p. (MIRA 17:1)

1. Chlen-korrespondent AN SSSR (for Sokolov).

KIPARISOVA, L.D.; AZARYAN, N.R.

First find of genus Cassianella in the Rtiassic of Transcaucasia. Paleont. zhur. no.4:91-93 '65. (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut i Institut geologicheskikh nauk AN Armyanskoy SSR. Submitted April 5, 1964.

CHEKAN, L.I.; KIPARISOVA, T.A.; KOMRAZ, A.M.

Single-powder dry concentrates for making carbonated drinks.
Trudy VNIIPP no.7:106-118 '59. (MIRA 13:5)
(Carbonated beverages)

KIPATOV, V. G.

Irrigation farming

Conference of the All-Union Lenin Academy of Agricultural Sciences on problems of exploitation of irrigated lands. Sov. agron. 10 No. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, August 1952. UNCLASSIFIED.

KIPATOV, S. M.

S. M. Kipatov and S. I. Meyersson

"Thermodynamic Properties of Polymer Solutions. Influence of Temperature on the Heat of Solution of Polymers in Different Liquids", Colloid Journal 12, 122-30, April 1950, Moscow, Textile Institute.

ABSTRACT AVAILABLE

D-50054

KIPCHEV, Iv., dotsent; TURTURKOV, I., MIRCHEV, M., KUNEV, K.

Our experience with the treatment of gunshot wounds and open fractures. Khirurgiia 17 no.2:168-[illegible] '64.

1. Iz Vasshita voenno-meditsinski institut.

MARTYNYUK, F.; KIPCHUK, T., inzh.

We increase the production of silicate brick. Sil'.bud. 12 no.7:15-16 Jl '62. (MIRA 15:8)

1. Predsedatel' soveta Dzerzhinskogo mezhkolkhozstroya Zhitomirskoy oblasti (for Martynyuk).
(Sand-lime brick)

KIPEL', S.Z.

Year's work under the new conditions. Zdrav. Belor. 6 no.3:16-17 Mr '60. (MIRA 13:5)

1. Glavnyy vrach Volozhinskogo rayona.
(VOLOZHIN DISTRICT--PUBLIC HEALTH, RURAL)

KIPATOVA, N.YA.

"Changes Arising in the Higher Nervous Activity of Dogs Under the Influence of Irradiation by Roentgen Rays of the Cervical Section of the Vegetative Nervous System," by F. P. Mayorov, B. V. Pavlov, and N. Ya. Kipatova, Laboratory of Physiology and Pathology of Higher Nervous Activity (head, F. P. Mayorov), Trudy Instituta Fiziologii imeni I. P. Pavlov (Works of the Institute of Physiology imeni I. P. Pavlov), Moscow-Leningrad, Publishing House of the Academy of Sciences USSR, Vol 5, 1956, pp 79-102

Tests were conducted on five dogs in an effort to explain the influence of repeated irratiation by large doses of X rays (6,000 and 8,000 r) of the neck of: (1) intact dogs, (2) dogs with both superior cervical sympathetic ganglia removed, and (3) dogs with splanchnic nerves removed on both sides. The method used was that of salivary secretion.

Sum. 1305

KIPATOVA, N.YA.

Results proved that irradiation of the neck by X rays at the site of the distribution of superior cervical sympathetic ganglia caused different changes in the higher nervous activity of intact and partially sympathectomized dogs. Thus: (1) In intact dogs there was a strong reduction in the value of conditioned and unconditioned reflexes, and these changes were of an irreversible nature for a long time. In certain cases hypnotic phases appeared which continued up to 3 weeks. (2) Irradiation by similar doses (6,000 and 8,000 r) of the neck of dogs who had undergone removal of the superior cervical sympathetic ganglia and those with severed splanchnic nerves caused in some cases a significant and prolonged rise of positive conditioned reflexes and in others their fall.

Histological changes in internal organs are described.

S.M.1305

KIPENS, Reinhods; ZANDERS, J., red.; PASTARE, D., tekhn. red.

[Radio physics] Radiofikacija. Riga, Latvijas Valsts izdevnieciba, 1962. 281 p. (MIRA 16:4)
(Radio)

1. KIPENTENKO, A. M.

2. USSR (600)

4. Tiles

7. Stacking and burning of the tile in ground-type kilns. Sel'. stroi. 2 no. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

KIPENVARLITS, A. F.

Medicine

Measures against wireworms on peat soils; Minsk, Akademiia nauk Belorusskoi SSR, 1951.

Monthly List of Russian Accessions, Library of Congress, May 1952. UNCLASSIFIED.

KIPENVARLITS, A.F., kandidat biologicheskikh nauk.

Click beetle density in peat soil grassland crop rotation areas. Sbor.nauch.trud.Inst.biol.AN BSSR no.2:46-61 '51. (MLRA 9:1)

(Click beetle)

KIPENVARLITS, A.F., kandidat biologicheskikh nauk.

Benzene hexachloride as an agent for combating wireworms on peat soil. Sbor.nauch.trud.Inst.biol.AN BSSR no.2:73-95 '51. (MLRA 9:1)

(Wireworm) (Benzene hexachloride)

KIPENVARLITS, A.F.

Role of mechanized tillage in combating the wireworm in reclaimed peat soils of the White Russian S.S.R. Sber.nauch.trud.Inst.biol. AN BSSR no.3:50-77 '52. (MLRA 9:2)
(White Russia--Wireworm) (White Russia--Tillage)

KIPENVARLITS, A.F.

Changes in soil fauna of marshes under the influence of land improvement. (MLRA 6:6)
Zool.zhur. 32 no.3:348-357 My-Je '53.

1. Institut sotsialisticheskogo sel'skogo khozyaystva Akademii nauk SSSR.
(Soil fauna)

USSR / General and Specialized Zoology. Insects. P

Abs Jour: Ref Zhur-Biol., No 2, 1958, 6749.

Author : Kipenvarlits, A. F., Khot'ko, A. I.
Inst : Institute of Socialist Agriculture, AS BSSR.
Title : The Role of Entrapping Baits in the Control of Injurious Insects in Turfy Podzolic Soils.

Orig Pub: Sb. nauchn. tr. In-ta, sots. s.-kh. AN BSSR, 1956, vyp. 4, 269-281.

Abstract: Entrapping baits made of cereal vegetation with the admixture of various grasses concentrate the insects and also myriapods and spiders. Beetles predominate among the insects: 81 species are listed, among which 44 were injurious. Numerically, among those attracted by the bait, first place is occupied by the Elateridae; second place - by phytophagous carabidae. On the turfy podzo-

Card 1/2

USSR / General and Specialized Zoology. Insects. P

Abs Jour: Ref Zhur-Biol., No 2, 1958, 6749.

Abstract: lic soils and peat-bog soils of the Belorussian SSR, baits laid out in the period of the mass emergence of the Elateridae from the ground (in the last 10 or 20 days of May, immediately after the planting of potatoes), may concentrate all of the Elateridae from a given area, and thus avert its infestation with Elaterid larvae of the new generation. For one hectare, 100 baits were used, in the form of 2-3 handfuls of vegetation. The baits should be treated with a hexachlorocyclohexane suspension (2 kilograms of 12% dust and 50 liters of water per 100 baits). -- A. P. Adrianov.

Card 2/2

USSR / General and Special Zoology. Insects. P

Abs Jour: Ref Zhur-Biol., No 4, 1958, 16423

Author : Kipenvarlits A.F., Zenkevich V.I.
Inst : Institute of Socialist Agriculture Academy of Sciences Belorussian Soviet Socialist Republic.
Title : On the Problem of the Control of Wire-shaped Insects in the Maize Fields in the Belorussian Soviet Socialist Republic. (K voprosu bor'by s provolochnikami na posyevakh kukuruzy v usloviyakh BSSR).

Orig Pub: Sb. nauchn. tr. In-t sots.s.kh. AN BSSR, 1956, vyp. 4, 290-312.

Abstract: When maize was planted among potatoes more wire-shaped insects were found in maize clusters than on maize planted in grasses. In the latter case the insects fed also on decaying grass roots.

Card 1/2

19

Abs Jour: Kipenvarlits A.F., Zenkevich V.I.

Abstract: When there was little insect infestation (5-10 insects per 1 m^2) treatment of seeds with [illegible] planting was recommended. In an infestation with wire-shaped insects (more than 10 insects on 1 m^2) the most effective treatment was the introduction of HCCH into the soil before cultivation (100 kg/hectare of a 12% dust). The administration of HCCH into maize (6-8 kg/hectare) was economically advantageous. When the maize sprouts, planted without treating the soil and the seeds, were discovered to be damaged, dusting (200 ml to a cluster) with a 0.3% suspension of a 12% HCCH dust was needed on the manure fertilizer.

Card 2/2

USSR/General and Special Zoology - Insects. P.

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30546

Author : Kipenvarlits, A.F.
Inst :
Title : The Length of Maturation and the Food Region of the Striped Elater (Agriotes lineatus) under BSSR Conditions.

Orig Pub : Zool.zh., 1957, 36, No 2, 219-224.

Abstract : The striped beetle in Byelorussia matured in 5 years; the larvae developed in 4 years. The period of mass going into the chrysalis stage lasted from the end of July to the 10th of August. The chrysalis stage lasted about 2-3 weeks. The mass transformation of the pupae into beetles took place in the second half of August. The imago stage lasted about 11 months. The period of inactivity of the beetles lasted from August up to and including April, the active life was in May and June. At the end of June and in July the beetles perished.

Card 1/2

KIPENVARLITS, Aleksandra Fedorovna, kand. biol. nauk; GILYAROV, M.S., prof., red.; KOVALENKO, A.G., red.; YERMILOV, V.M., tekhn. red.

[Change in the soil fauna in lowland bogs under the effect of drainage and use in agriculture] Izmenenie pochvennoi fauny nizinnykh bolot pod vliianiem melioratsii i sel'skokhoziaistvennogo osvoeniia. Pod red. M.S.Giliarova. Minsk, Sel'khozgiz BSSR, 1961. 196 p. (MIRA 16:6)

(White Russia--Soil fauna)
(White Russia--Swamps)

LIPTUGA, K.V., inzh.; MIROSHNICHENKO, A.G., inzh.; NEMCHENKO, G.V., inzh.; KIPER, I.K., inzh.

Obtaining high-strength cast iron by smelting in cupola furnaces with a mixture of thermoanthracite and coke. Mashinostroenie no.3:26-27 My-Je '65. (MIRA 18:6)

KIPER, I.M.

USSR/Cultivated Plants - Potatoes; Vegetables. Melons. etc. M.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15593

Author : I.M. Kiper

Inst : The V.V. Dokuchayev Institute.

Title : The Agrotechny of Seed Potato Crops.
(Ob agrotekhnike vyrashchivaniya semennogo kartofelya).

Orig Pub : Kartofel', 1957, No 2, 39-40.

Abstract : At the V.V. Dokuchayev Institute the effect of potato planting methods on the seed tuber output was studied in the south-east central chernozem soil belt. When square cluster sowing was used the seed tuber output did not go above a yield of 40%. Increasing the density of planting at the expense of reducing the distance between clusters from 70 to 60 cm raised the output of standard tubers only by an insignificant amount.

Card 1/2

KIPER, I. M.

COUNTRY : USSR
CATEGORY : Cultivated Plants. Potatoes, Vegetables, Cucurbits. M

ABS. JOUR. : RZhBiol., No.23 1958, No. 104681

AUTHOR : Kiper, I. M.
INST. : Scientific Research Institute of Agriculture of Central *)
TITLE : On Increasing the Gross Yields of Potatoes in Voronezh Oblast'.

ORIG. PUB. : Byul. nauchno-tekhn. inform. n.-i. in-ta s.-kh. tsentr.-chernozema. polosy, 1957, No. 3, 25-27

ABSTRACT : It was determined that in Voronezh oblast', it is possible to secure potato yields of 115-200 centners/ha without irrigation and 250-300 centners/ha with irrigation. It is recommended to distribute the seed plots on irrigated and river valley lands and at the bottom of ravines. The seed potatoes should be grown with close in-row planting (70 x 30 cm). In southern and southeastern regions, all seed potatoes of early and intermediate-early varieties should be grown with summer planting. In northern regions, summer planting is recommended for roguing the seeding material.

*)Chernozem Belt.

Card: 1/2

COUNTRY :
CATEGORY :

M

ABS. JOUR. : RZhBiol., No. 1958, No. 104681

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : for which allocation of 1/5 of the seed plot is sufficient. In regions with inadequate amount of precipitation, it is expedient to plant one tuber per planting hole on a space of 60 x 60 cm; with irrigation - 2 tubers to a hill on a space of 70 x 60 cm or 60 x 60 cm. Local application of 3-6 tons/ha of humus in mixture with 1.2-2.4 centners of P_2O_5 produced an increase in the yield of 14-22 centners/ha. -- Ye. A. Okorokova

Card: 2/2

KIPER, I.M., kand.sel'skokhozyaystvennykh nauk

Breeding potatoes for early maturity. Agrobiologiia no. 3:350-355 My-Je '60. (MIRA 13:12)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva TSentral'no-chernozemnoy polosy imeni Dokuchayeva.
(Potato breeding)

KIPER, I.M., kand.sel'skokhozyaystvennykh nauk

Breeding high-yielding varieties of early potatoes. Agrobiologiia no.2:184-187 Mr-Ap '62. (MIRA 15:4)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva TSentral'no-chernozemnoy polosy imeni V.V.Dokuchayeva Voronezhskaya oblast'.
(Potato breeding)

KIPER, Ye.V., kand. tekhn. nauk; CHERKUN, V.Ye., kand. tekhn. nauk; MOROZOV, V.I., inzh.; BOGAYEVSKIY, V.A.

Errors in machining the body-slide valve pair of hydraulic distributors. Trakt. i sel'khozmash. 33 no.11:40-42 N '63. (MIRA 17:9)

1. Melitopol'skiy institut mekhanizatsii sel'skogo khozyaystva (for Kiper, Cherkun, Morozov). 2. Glavnyy tekhnolog Melitopol'skogo agregatnogo zavoda (for Bogayevskiy).

KIPER, Ye.V.; MIKHAYLENKO, V.P.; KOVALEV, I.V.

Reliability potentials of the automatic turret lathes. Stan. i instr. 36 no.5:10-11 My '65. (MIRA 18:5)

KIPER, Ye.V., kand.tekhn.nauk; CHERKUN, V.Ye., kand.tekhn.nauk; MOROZOV, V.I., inzh.; BOGAYEVSKIY, V.A.

Precision in machining holes on the body of hydraulic distributors by various methods. Trakt. i sel'khozmash. no.9:41-42 S '65. (MIRA 18:10)

1. Melitopol'skiy institut mekhanizatsii sel'skogo khozyaystva (for Kiper, Cherkun, Morozov). 2. Glavnyy tekhnolog Melitopol'skogo agregatnogo zavoda (for Bogayevskiy).

BALABASHKIN, S.V.; KIPER, Z.M.

Mechanization of hauling operations in meat and fat processing shops. Khar. prom. no.2:20-21 Ap-Je '65. (MIRA 18:5)

KIPERBERG, M.

Requirements for maintaining general and unbroken work history.
Sots.trud. no.1:140-146 Ja '57. (MLRA 10:4)
(Pensions)

KIPERINA, A. V.

B. A. Kazanskii, A. V. Kiperina, and O. A. Zemskaya - "Concerning the oxidation of 1-methyl cyclohexanol. The synthesis of 1-methyl-3-propylcyclopentane." (p. 1212)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1920, Vol. 20, No. 7.

KIPERMAN, Grigoriy Yakovlevich; TRET'YAKOVA, V.N., red.

[Classification of the branches of the national economy of the U.S.S.R.] Klassifikatsiia otraslei narodnogo khoziaistva SSSR. Moskva, Statistika, 1964. 74 p.
(MIRA 17:11)

GAABE, Yu.E.; KAZARINA, A.K.; KIPERMAN, G.Ya.; MALYI, I.G.; ROZENTAL', O.E.; KOROTKOV, A.F., retsenzent; TITEL'BAUM, N.P., retsenzent; TRUKHANOVA, A.N., red.; IL'YUSHENKOVA, T.P., tekhn. red.

[The theory of statistics] Teoriia statistiki. [By] IU.E. Gaabe i dr. Pod red. I.G.Malogo. Moskva, Iskusstvo, 1963. 398 p. (MIRA 16:5)
(Statistics)

KIPERMAN, M.

Minima of VW Cephei. Astron.tsir. no.227:16-17 F '62.

1. Odesskoye otdeleniye Vsesoyuznogo astronomo-geodezicheskogo obshchestva. (MIRA 16:1)

(Stars, Variable)

KIPERMAN, S. PA 18T79

USSR/Chemistry - Ammonia Jun 1946
Chemistry - Copper

"The Kinetics of the Decomposition of Ammonia on Copper," S. Kiperman, M. Temkin, 5 pp

"Zhur Fiz Khim" Vol XX, No 6

Discusses the subject, with accompanying tables and graphs, to the conclusion that under like conditions the formula used formerly for the kinetics of the decomposition of ammonia on iron and platinum is the same as that used for determining the kinetics of the decomposition of ammonia on copper.

18T79

PROCESSES AND PROPERTIES INDEX

Kinetics of the ammonia synthesis on tungsten. S. Kiperman and M. Temkin. *J. Phys. Chem. (U.S.S.R.)* 20, 623-7(1946). Mixts. of H and N were passed through a W catalyst prepd. by reduction of NH_4 paratungstate with NH_3 at 800-[illegible] and then with H and N at 800-[illegible]. The temp. was varied between 582 and 678°, the ratio $H_2:N_2$ between 1 and 4, and the space velocity of gas flow between 12,000 and 104,000/hr. The relative yield y (that is the yield of NH_3 divided by the yield corresponding to equil.) could be expressed by the equation $k = \ldots y^{1.5} 1/P^{0.5} \ln(1 - y^2)$, k being a const., $y = P_1/0.25 P$, P_1 the partial pressure of H_2 and P the total pressure. This equation can be derived from the theory of Temkin and Pyzhev, C.A. 34, 6512. k was 450 (the unit is not defined) at 582°, 1000 at 632°, and 5100 at 678°. The apparent energy of activation is 45,000 cal. As the energies of activation on Fe and Mo catalysts are very similar, the mechanism of the NH_3 synthesis on these 3 catalysts seem to be identical. The x-ray spacing of W catalysts after they have been used for synthesis agrees with that of pure W.

J. J. Bikerman

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KIPERMAN, S.

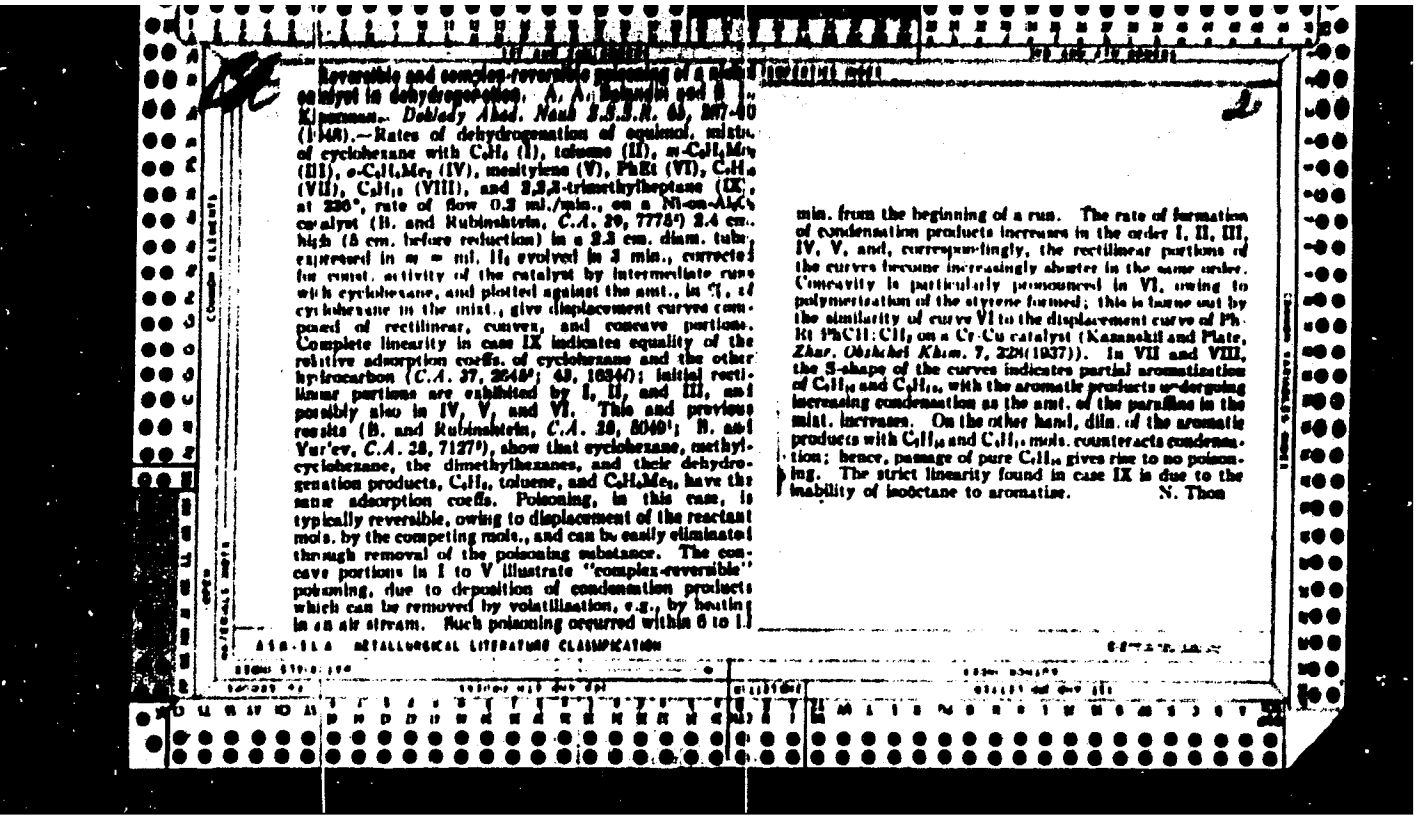
Kinetics of ammonia syntaesis on molybdenum catalyst. S. Kiperman and M. Temkin (Karpov Inst. Phys. Chem., Moscow). *Acta Physicochim.* 21, 567-83(1946)(in English); *J. Phys. Chem.* (U.S.S.R.) 20, 369-78(1946).— The expti. data confirm the work of Temkin and Pyzhev (cf. *C.A.* 34, 6512⁷) on the synthesis of NH_3 on promoted Fe catalyst and extend the results to a Mo catalyst. A flow system was used with 3 cc. of catalyst. The Mo catalyst was prepd. by reducing ammonium molybdate in NH_3 for 20 hrs. at 600–650°. X-ray diffraction patterns indicate that the catalysts operate in the form of metallic Fe and Mo_2N. The data for both catalysts support the kinetic equation suggested by T. and P., the value of α for both catalysts is 0.5. The apparent *activation energy* of NH_3 decompn. on Mo catalyst as calcd. from the synthesis rate is 42.5 kg.-cal./mole. The NH_3 synthesis on Fe and Mo is considered to have the same mechanism. B. A. Van Nordstrand

— Lab - Chem - Kinetics

Kinetics of synthesis and decomposition of ammonia on [illegible] and S. Kiperman (Karpov Inst. Phys. Chem., Moscow). *J. Phys. Chem.* (U.S.S.R.) 21, 927–52(1947)(in Russian); cf. *C.A.* 36, 6392⁴.— The equation for the rate v of reaction, $v = k_1 P_1 (P_1^{\frac{1}{2}}/P_2^{\frac{1}{2}})^{\alpha} - k_2 (P_1^{\frac{1}{2}}/P_2^{\frac{1}{2}})^{1-\alpha}$, in which P_1, P_2, and P_3 are the partial pressures of N_2, H_2, and NH_3, resp., and k_1, k_2, and α are const., is integrated by assuming the total pressure to be const. The energy of activation is expressed as a function of α. The best compn. of the gas mixt. is given by $P_1 = 3\alpha$. The above equation is valid only when the system is not too far removed from the equil. state. Variations of the adsorbed amt. of N_2 may cause the decompn. of NH_3 to be a zero-order reaction at very low NH_3 concns. Consideration of earlier expts. shows that the equation is valid for various catalysts (Fe, Mo, W, U, Ce, Mn, Os, Ru, Cu, and Pt), that α usually is 0.5, and that the activation energy is almost independent of the nature of the catalyst. This proves that the reaction mechanism is identical on various catalysts. The rate of synthesis should depend on the degree of uniformity of the catalyst surface. 57 references. I. J. Bikerman

KIPERMAN, S.

Kinetics of the ammonia synthesis on ruthenium. S. Kiperman (Karpov Inst. Phys. Chem., Moscow). *J. Phys. Chem.* (U.S.S.R.) 2, 1165-6 (1931) (in Russian); cf. *C.A.* 40, 6850⁹; 41, 332a. Mixts. of N_2 and H_2 were passed through a Ru catalyst deposited on SiO₂ gel at 552, 650, 665, 709, and 736°. The mol. ratio $H_2:N_2$ was varied between 0.5 and 16, and the rate of gas flow between 19,000 and 125,000 l./hr. The reaction rate $v = (k_1P_1/P_3^{1.5})/P_3) - (k_2P_3/P_3^{1.5})$, P_1, P, and P_3 being the pressures of N_2, H_2, and NH_3, resp. This equation is derived by assuming that the adsorption of H_2 is important and that there exists a particular relation between the mol. forces within the adsorbed film. The equation differs but little from the equation $v = (k_1P_1/P_3^{1.5})/P_3) - (k_2P_3/P_3^{1.5})$ valid for catalysts that do not absorb H (cf. Temkin and Pyzhev, *C.A.* 34, 6512⁷), but consideration of the H adsorption is important for understanding the value of activation energy which, on Ru, is 59,250 cal. instead of 46,500 cal. for other catalysts. The difference between these values is ¼ the adsorption energy of H by Ru. J. J. Bikerman



Reversible and complex-reversible poisoning of a nickel catalyst in dehydrogenation. A. A. Balandin and [illegible] Kagan. *Doklady Akad. Nauk S.S.S.R.* 63, 307-10 (1948).—Rates of dehydrogenation of equimol. mixts. of cyclohexane with C_6H_6 (I), toluene (II), *m*-$C_6H_4Me_2$ (III), *o*-$C_6H_4Me_2$ (IV), mesitylene (V), PhEt (VI), C_8H_{16} (VII), C_8H_{18} (VIII), and 2,2,3-trimethylheptane (IX), at 230°, rate of flow 0.2 ml./min., on a Ni-on-Al_2O_3 catalyst (B. and Rubinshtein, *C.A.* 29, 7778[4]) 2.4 cm. high (5 cm. before reduction) in a 2.3 cm. diam. tube, expressed in $x = $ ml. H_2 evolved in 3 min., corrected for const. activity of the catalyst by intermediate runs with cyclohexane, and plotted against the amt., in %, of cyclohexane in the mixt., give displacement curves composed of rectilinear, convex, and concave portions. Complete linearity in case IX indicates equality of the relative adsorption coeffs. of cyclohexane and the other hydrocarbon (*C.A.* 37, 2648[9]; 43, 1634[d]); initial rectilinear portions are exhibited by I, II, and III, and possibly also in IV, V, and VI. This and previous results (B. and Rubinshtein, *C.A.* 38, 5049[1]; B. and Yur'ev, *C.A.* 38, 7127[9]), show that cyclohexane, methylcyclohexane, the dimethylhexanes, and their dehydrogenation products, C_6H_6, toluene, and $C_6H_4Me_2$, have the same adsorption coeffs. Poisoning, in this case, is typically reversible, owing to displacement of the reactant mols. by the competing mols., and can be easily eliminated through removal of the poisoning substance. The concave portions in I to V illustrate "complex-reversible" poisoning, due to deposition of condensation products which can be removed by volatilization, e.g., by heating in an air stream. Such poisoning occurred within 6 to 15 min. from the beginning of a run. The rate of formation of condensation products increases in the order I, II, III, IV, V, and, correspondingly, the rectilinear portions of the curves become increasingly shorter in the same order. Concavity is particularly pronounced in VI, owing to polymerization of the styrene formed; this is borne out by the similarity of curve VI to the displacement curve of PhEt $PhCH:CH_2$ on a Cr-Cu catalyst (Kazanskii and Plate, *Zhur. Obshchei Khim.* 7, 228(1937)). In VII and VIII, the S-shape of the curves indicates partial aromatization of C_8H_{16} and C_8H_{18}, with the aromatic products undergoing increasing condensation as the amt. of the paraffins in the mixt. increases. On the other hand, diln. of the aromatic products with C_8H_{16} and C_8H_{18} mols. counteracts condensation; hence, passage of pure C_8H_{16} gives rise to no poisoning. The strict linearity found in case IX is due to the inability of isooctane to aromatize. N. Thon

C A

2

Flow-circulation method of investigation of the kinetics of heterogeneous catalytic reactions. M. I. Temkin, S. L. Kiperman, and L. I. Lik'yanova (L. Ya. Karpov Phys. Chem. Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 74, 763-6(1950).—The difficulty inherent in the kinetic evaluation of data of conversion in a flow through a column of catalyst of finite length, when the concns. of the reactants and products vary from one section of the catalyst to the other as a result of the conversion, and consequently the differentiation of the exptl. conversion data, in view of obtaining a differential rate law, becomes uncertain, is eliminated by an adaptation of the idea of Denbigh (*C.A.* **39**, 1099*) subsequently utilized by Hammett, *et al.* (*C.A.* **44**, 4780b, 4763*) for homogeneous reactions. The reacting gas is admitted to the catalyst zone at a const. velocity *v*, is made to circulate through the reaction zone, and is led out at exactly the velocity *v*. Provided the velocity of the circulation through the reaction zone is very much greater than the velocity *v* of inflow and outflow, the variation of the compn. of the reacting gas in each single pass is negligible, and that compn. can be taken as stationary. A check is provided by splitting the outgoing gas stream into two portions, led out of the system just before and after the catalyst zone, with the sum of the two outgoing gas streams equal to *v*; fulfillment of the condition of constancy of compn. in each single pass is indicated by closeness of the compns. in the two branches of the outgoing gas. The method was applied to the synthesis of NH_3 from a stoichiometric $N_2 + 3\ H_2$ gas mixt. on 1 cc. of a synthetic-ammonia catalyst at 451°, with rates of circulation of 300–800 l. gas/hr., and *v* varied between about 9 and 110 l. gas (STP)/hr. With U = vol. of gas flowing in and out per unit time, c = concn. of the product in the total outgoing gas, W = vol. of the catalyst, f = free fraction of the catalyst vol., the rate k of the reaction can be expressed by cU/fW, or, in terms of the partial pressure p_A' of NH_3 in the initial gas mixt., $p_A'U/fW$, or, on account of the insignificant vol. change, $r = p_AU/fW$, where p_A = partial pressure of NH_3 in the outgoing gas. The previously established (Temkin, *et al.*, *C.A.* **34**, 6513*; **42**, 2501g) kinetic law for the catalytic synthesis of NH_3, $r = k_1p_N(p_N^3/p_A^2)^{0.5} - k_2(p_A^3/p_N^3)^{0.5}$ (with the exponent 0.5 valid for the particular catalyst), gives $k = \gamma^{1.5}/P^{0.5}(U_0/W)x^2/(1-x^2)$, where $\gamma = p_N/0.75\ p_A'$; P = total pressure; U_0 = U reduced to 0° and 1 atm.; $k = 273\ k_1/0.75^{1.5}P_0T$ (P_0 = 1 atm.); x = yield of NH_3 in fractions of the equil. NH_3 content (= 0.216 ± 0.005). Exptl. data (U_0/W = 8000, 20,000, 46,000, 60,000, 86,200, 110,000 ml. gas (STP)/ml. catalyst/hr., x = 0.724, 0.693, 0.461, 0.398, 0.358, 0.302) give k(av.) ~12 × 10^6, fairly close to the previously detd. k = 7.8 × 10^6 by the simple flow method. N. Thon

Ca
1951

7

Change in reaction order for ammonia synthesis. I. Reaction kinetics on an osmium catalyst. S. L. Kiperman and V. Sh. Granovskaya (Karpov Phys. Chem. Inst., Moscow). *Zhur. Fiz. Khim.* 25, 557-64(1951).—The kinetics of NH_3 synthesis at atm. pressure was studied between 420 and 600° in a dynamic system on an osmium-on-silica gel catalyst. The catalyst (2 cc.; 1.68 g.) was reduced at 450° in the synthesis gas; reduction was completed at 475° until const. activity was reached. Temkin and Pyzhev's equation for the rate: $r = k_1 p_{N_2} \rho^{\alpha} - k_2(1/\rho)^{1-\alpha}$ (1), where $\rho = (p_{H_2}^3/p_{NH_3}^2)$ is valid when departure from equil. is not too large, i.e. for medium coverage of the surface by N_2 (C.A. 42, 2501g). In the region of low coverage by N_2, (1) reduces to $r = k_1 p_{N_2} - k_2(1/\rho)$ (2), that is, $\alpha = 0$. The transition between (1) and (2) is thus predicted by theory, and the aim of this study is to observe it on Os. The value of α is detd. from $-\log p_{NH_3} = \text{const.} + (1/(1 + 2\alpha)) \log V$ where V is the space velocity (hr.$^{-1}$). The rate consts. are calcd. from $k = -0.5\gamma^{1.5} V/P^{1.5} \ln(1 - x^2)$ or $k' = Vx$, where $x = p_{NH_3}/(p_{NH_3})_{equil.}$, P = total pressure, $\gamma = p_{H_2}/0.75P$ (C.A. 40, 6958[?]), corresponding, resp., to $\alpha \neq 0$ or $\alpha = 0$. Three sets of data are reported. The 1st and the 2nd set are obtained with a $p_{H_2}:p_{N_2} = 3:1$ mixt. The 1st set gives V, x, and $k \times 10^{-3}$ at various temps.; when the value of the rate const. is k' and not k, the figure is italicized. At 420°: (7150, 0.044, *0.31*), (14300, 0.025, *0.36*), (33000, 0.013, *0.43*), (61100, 0.008, *0.51*), (82000, 0.005, *0.34*). At 450°: (10700, 0.124, *1.3*), ([illegible], 0.101, *1.3*), (14150, 0.097, *1.3*), (39150, 0.055, *1.6*), (57200, 0.027, *1.5*), (60250, 0.026, *1.5*), (78300, 0.021, *1.6*). At 475°: (6000, 0.623, —), (23100, 0.192, —), (44250, 0.121, *5.4*), (54500, 0.106, *5.2*), (73000, 0.085, *6.0*), (74250, 0.082, *6.4*), (108000, 0.060, *6.5*), (111750, 0.058, *6.5*). At 500°: (9450, 0.649, *2.5*), (13450, 0.564, 2.5), (28400, 0.378, 2.1), (57800, 0.216, *1.3*), (71000, 0.191, *1.4*), (98000, 0.143, *1.4*). At 550°: (9000, 0.904, 7.6), (23600, 0.584, 4.8), (46625, 0.418, 4.4), (63900, 0.336, 4.3), (81200, 0.301, 3.8). At 600°: (15300, 0.908, 13.5), (25350, 0.697, 8.5), ([illegible], 0.412, 5.9), (68200, 0.398, 5.8), (89000, 0.348, 5.7), (122100, 0.309, 4.6). The 2nd set gives $t°$, x, and k at two different values of V. At V = 21000: (450, 0.078, *1640*), ([illegible], 0.010, *210*), (450, 0.072, *1490*), (400, 0.010, *210*). At V = 66600: (600, 0.398, 5680), (575, 0.299, 3070), (600, 0.414, 6070), (550, 0.209, 1480), ([illegible], 0.364, [illegible]). The 3rd set gives V, x, and k for various mixts. characterized by $f = p_{H_2}:p_{N_2}$, all data being taken at 450°. For f = 11: (30175, 0.0068, *485*), for f = 3: (28150, 0.0102, *287*), for f = 1: (29850, 0.0268, *804*), for f = 0.64: (31200, 0.0306, *351*). Thus at 550° and 600°, equation (1) is obeyed with $\alpha = 0.5$ and the activation energy E = 41.6 kcal./mole. At 420° and 450°, equation (2) is obeyed with $\alpha = 0$ and E = 30.2. There is a change in reaction order at 500°. At 420 and 450°, x is very small (0.5 to 12%). At 500°, $\alpha = 0.5$ when $0.38 < x < 0.65$, but $\alpha = 0$ when $0.14 < x < 0.21$. The adequacy of equation (1) in this case shows that it remains valid even in the case of H_2 adsorption taking place on Os. The data of the 3rd set give a straight line passing though the origin in a plot p_{NH_3}, p_{N_2}. The change in reaction order has not been observed on other catalysts because the values of x were too high. The transition depends on the heat Q of chemisorption of N_2: if Q is low, the transition is observable for not too low values of x. The catalyst after reaction consists of a body-centered cubic nitride (3.45 A.).

Michel Boudart

TEMKIN, M. I., ROMANUSHKINA, A. YE., KIPERMAN, S. L.

Nitrogen

Determination of small amounts of nitrogen in gases. Zhur. anal. khim. 7 No. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1952, Uncl.

KIPERMAN, S.L.

USSR/Chemistry - Catalysts May 52

"Reduction of a Catalyst With Atomic Hydrogen," S. L. Kiperman, N. A. Rybakova, M. I. Temkin, Phyr Chem Inst imeni L. Ya. Karpov, Moscow

"Zhur Fiz Khim" Vol XXVI, No 5, pp 621-623

Reduction of wolframic acid anhydride with atomic hydrogen at low temps produces a W catalyst for ammonia synthesis which shows a higher activity at atm pressure than W catalysts obtained by ordinary reduction at high temps.

219T3

KIPERMAN, S. L. IA 242T9

USSR/Chemistry - Synthesis of Ammonia Nov 52

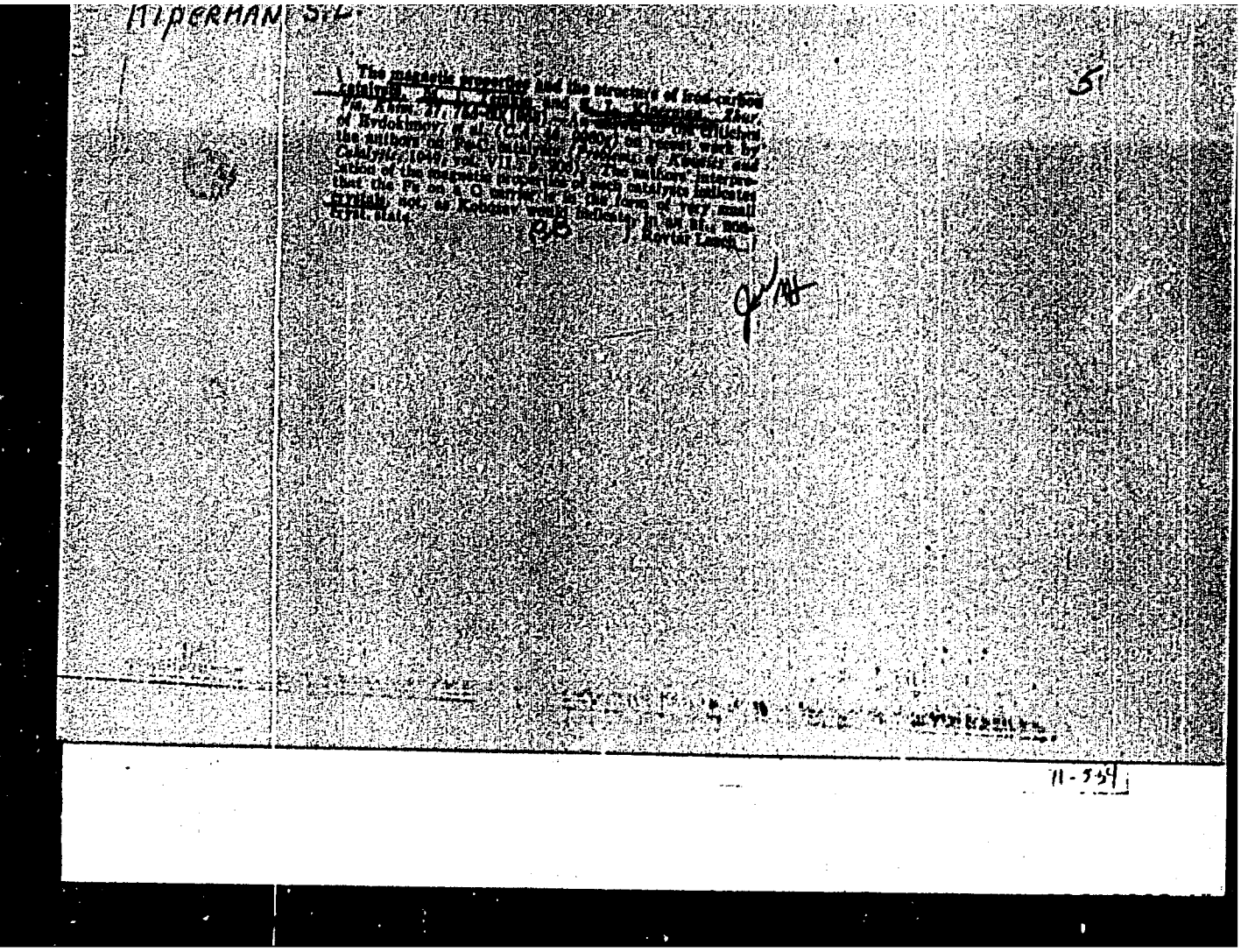
"The Change in the Reaction Order in the Synthesis of Ammonia: II. Research Into the Kinetics of the Reaction on an Iron Catalyst, at a Point Removed From Equilibrium," S. L. Kiperman and V. Sh. Granovskaya, Physicochem Inst imeni L. Ya. Karpov, Moscow

"Zhur Fiz Khim" Vol 26, No 11, pp 1615-1618

The authors obtained data regarding the kinetics of ammonia synthesis on two specimens of Fe catalyst at atm pressure. If there is a significant departure from equil, when there is a small vol of ammonia gas, the order of the reaction changes. Where the yields of ammonia are relatively small, the kinetics of the reaction are represented by the eq, $w = k_1 P_{N_2}$, that is, the rate of the reaction does not depend on the partial pressures of H and ammonia as is the case on an Os catalyst. Author says that the change in the sequence of the reaction of ammonia synthesis, caused by the change in the degree to which the surface of the catalyst is covered with N confirms previously developed ideas.

242T9

242T9



KIPERMAN, S. L.
USSR/Chemistry

Card 1/1

Authors : Kiperman, S. L.

Title : About the kinethics of the synthesis of ammonia in the presence of oxygen or water vapor

Periodical : Zhur. Fiz. Khim, 28, Ed. 3, 389-401, March 1954

Abstract : Investigated was the mechanism of reaction necessary for the synthesis of ammonia in the presence of oxygen, water vapor or carbon monoxide and an equation of the kinetics is introduced. An analysis of this equation is included. A study was made to determine the change in the sequence of reaction in the presence of a poison during considerable departure from the equilibrium and to determine the effect of pressure on the rate of reaction. Kinetic equations were also introduced for these cases. The obtained ratios are in good conformity with the experimental data available in literature. Twenty six references. Tables.

Institution : .....

Submitted : February 22, 1953

Kipperman, S.L.

BALANDINA,V.A. [translater]; BOGDANOVA,O.K.[translater]; VASSERBERG,V.E., [translater]; KIPERMAN,S.L.,[translater]; BALANDIN,A.A., akademik, redaktor; RUBINSHTEYN,M.M., professor, redaktor; SATAROVA,M.V., redaktor; OGANDZHANOVA,N.A., redaktor; IOVLEVA,N.A., tekhnicheskiy redaktor

[Catalysis, catalysts for organic reactions; translated from the English] Kataliz, katalizatory organicheskikh reaktsii. Perevod s angliiskogo Balandinoi i dr. Moskva, Izd-vo inostrannoi lit-ry, 1955. 336 p. (MLRA 9:2)

(Catalysts)

KIPERMAN, S.L.

AUTHORS: Kiperman, S.L., Balandin, A.A., Davydova, I.R. 62-12-9/20

TITLE: On the Influence Exercised Upon the Activity of the Nickel Skeleton Catalyst of Fine Crushing by Means of Vibration (O vliyanii na aktivnost' skeletnogo nikelevogo katalizatora tonkogo izmel'cheniya putem vibratsionnogo pomola)

PERIODICAL: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1957, Nr 12, pp. 1482-1484 (USSR)

ABSTRACT: The skeleton catalysts obtained by the leaching of the respective alloys are today widely in use (in particular for the carrying out of reactions in the liquid phase). In this connection too little attention is paid to the important dispersion, especially when pulverized catalysts are used. In order to explain the influence exercised by the dispersion of catalysts upon their activity the authors employed the method of fine crushing of the nickel-aluminum alloy (see table and diagram). As regards the result of the experiment it may be said that the activity (and specific activity) of the nickel-skeleton catalysts, which had previously been pulverized by vibration crushing, showed a higher activity of catalysts in the reactions of their hydrogenesis of cyclohexane and the dehydrogenerization of

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On the Influence Exercised Upon the Activity of the Nickel Skeleton Catalyst of Fine Crushing by Means of Vibration

62-12-9/20

the isopropyl alcohol in the liquid phase. It is assumed that the cause of the increased activity is due to a change of the microroughness of the surface or by the existence of an internal diffusion deceleration. There are 1 figure, 1 table, and 7 references, 6 of which are Slavic.

ASSOCIATION: Institute for Organic Chemistry AN USSR imeni N.D.Zelinskiy (Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR).

SUBMITTED: July 9, 1957

AVAILABLE: Library of Congress

Card 2/2 1. Nickel skeleton catalyst-Crushing-Vibration 2. Nickel aluminum-Alloys

KIPERMAN, S.L.

USSR/Physical Chemistry - Kinetics, Combustion, Explosions, Topochemistry, Catalysis. B-9

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 509

Author : A.A. Balandin, S.L. Kiperman.
Inst : -
Title : To the Question of Kinetics of Dehydrogenation of Alcohols

Orig Pub : Zh. fiz. khimii, 1957, 31, No 1, 139-149

Abstract : Basing on the assumption that the process proceeds in stages, the general equation of kinetics of alcohol dehydrogenation on a quasihomogeneous catalyst surface (RZhKhim, 1954, 33897) was derived by the method of stationary concentrations; this equation agrees with experimental data. If the speed constant c_2 of the surface reaction is less than the speed constant of desorption of alcohol and reaction products, then the constants in the denominator of the kinetic equation will represent corresponding adsorption factors, but if c_2 is greater than the other

Card 1/2

AUTHOR KIPERMAN, S.L., BALANDIN, A.A., Member of the Academy.

TITLE On Bond Energy between nickel catalysts and various elements of Organic Compounds. 20-2-26/57
(O velichinakh energii svyazi nikelevykh katalizatorov s elementami organicheskikh soyedineniy - Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 2, pp 335-338, (U.S.S.R.)

Received 6/1957 Reviewed 7/1957

ABSTRACT When solving the problem of scientific selection of catalysts the determination of binding energies of the latter with difernet elements is of essential importance. Here the following methods are applicable; the thermochemical, the adsorption-chemical, and the kinetic method. The latter was in former times used only in connection with the oxydation catalysts. The authors here attempt to apply this method for the computation of bond energy by means of reactions not applied before. They investigated the bond energies of the nickel-catalysts with hydrogen and deuterium, with carbon on the occasion of a double bond and of a simple bond, with oxygen and with nitrogen. As obvious from the theories quoted above the kinetical method can be applied for finding out the bond energy values of the nickle-catalysts with different elements under application of such reactions as paraortho-transformation of hydrogen, isotope exchange, hydrogenisation and hydrogenolysis. The values chiefly harmonize with

Card 1/2

Kiperman, S.L.

32-2-30/60

AUTHORS: Kiperman, S. L., Davydova, I. R.

TITLE: The Dosage of Pyroforic Catalysts (Dozirovka piroformykh katalizatorov)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 2, pp. 221 - 222 (USSR)

ABSTRACT: A method for the weighing of catalysts, which are inactivated, when exposed to air, was developed in the laboratory of the Member of the Academy A. A. Balandin. On a spiral made of tungsten wire a glass ampule is mounted, which is dipped in to a container filled with liquid. Previous to each determination a calibration is performed by measuring with a cathetometer the extension of the spiral at a given temperature with taring-weights. The measurement is then repeated with the catalyst dispersion under investigation. The weight can then be calculated from a formula containing the density of the liquid at a given temperature, the specific weights of the taring-substance, as well as that of the catalyst. The

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The Dosage of Pyroforic Catalysts 32-2-30/60

determination takes from 3 to 5 minutes.

ASSOCIATION: Institute for Organic Chemistry imeni N. D. Zelinski AN USSR (Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR)

AVAILABLE: Library of Congress

1. Catalysts-Weight determination

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5(4)

SOV/76-33-4-12/32

AUTHORS: Kiperman, S. L., Balandin, A. A.

TITLE: The Bond Energy of the Surface of Metallic Catalysts With Hydrogen and Deuterium (Energiya svyazi poverkhnosti metallicheskikh katalizatorov s vodorodom i deyteriyem)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 4, pp 828-834 (USSR)

ABSTRACT: In a previous paper (Ref 8) a report was given on the application possibility of a variant of the kinetic method of determining the formation energy (FE) of nickel catalysts with elements of organic compounds. In the present case the amount of (FE) of different metallic catalysts (Ni, Fe, Pt and Pd) with hydrogen (I) and deuterium (II) was determined. The reaction of the para-ortho-conversion of (I), of the ortho-para-conversion of (II) and of the isotopic exchange of (I) with (II) was used for the computation of (FE) from the kinetic data. The computations are made according to the derived equations (4)-(7), (9), (10), (12) and (13) as well as according to the corresponding data from publications. The values of (FE) obtained with (I) and (II) are tabulated (Table). The (FE)-values for different metals are rather similar; however, it is pointed out that the reaction mechanism on some catalysts is determined by

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The Bond Energy of the Surface of Metallic Catalysts With Hydrogen and Deuterium

adsorption and on others by desorption so that this fact may explain a difference. On the basis of the similar (FE)-values it is assumed that the reaction on the various metal surfaces takes place mainly on the active spots which show optimum (FE)-values. Since in the determination of (FE) according to heat absorption on the one hand, only the active spots at which adsorption takes place are taken into account, and on the other hand, equation (16) assumes a complete destruction of the bonds whereas in the case of the kinetic method (on the basis of the multiplet theory of catalysis) only a deformation of the bonds is assumed, the (FE)-values obtained according to the kinetic method and those obtained from the values of adsorption heat differ from each other. It is said that special investigations must be carried out on the applicability of the Pauling rule for the above determinations. There are 1 table and 33 references, 17 of which are Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut organicheskoy khimii im. N. D. Zelinskogo (Academy of Sciences of the USSR, Institute of Organic Chemistry imeni N. D. Zelinskiy)

SUBMITTED: September 18, 1957

5(4)

AUTHORS: Kiperman, S. L., Balandin, A. A.

SOV/76-33-9-26/37

TITLE: The Bond Energies of the Surface of Metallic Catalysts With Carbon

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 9, pp 2045 - 2052 (USSR)

ABSTRACT: The applicability of a variation of the kinetic method (Ref 3) used for the determination of the bond energies of the surface of nickel catalysts with elements of organic compounds was indicated in previous articles (Refs 1,2). Further, the bond energy (BE) of hydrogen (I) with metallic catalysts (C) was calculated. This method is used here for a determination of the (BE) of the surface of metallic (C) with carbon (II). It was based on the amount of (BE) with light and heavy (I), which had been obtained by reactions of para- and ortho-conversion and the activation energy of the isotopic exchange, the hydrogenation and hydrogenolysis of organic compounds in the presence of these (C). The formation of duplet complexes between the initial substance (IS) and the (C) is considered to be a slowly proceeding inter-

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mediate stage which is termed adsorption stage (AS). On the basis of the multiplet theory of catalysis the (AS) is characterized by the height of the energy barrier E, which depends on the adsorption heat of the (IS) on the catalytically active parts of the (C)-surface. The authors investigated the following reactions and calculated the (BE) of (II) with the surfaces of Ni, Fe, Pt, and Pd catalysts (Table): $C_2H_6+H_2 = 2\ CH_4$ (1), $CH_4+D_2 = CH_3D+HD$ (2), $C_2H_4+H_2=C_2H_6$ (8), $C_2H_4+D_2=C_2H_3D+HD$ (9), $C_2H_2+H_2=C_2H_4$ (14), $CH_3C\equiv CH+H_2=CH_3CH=CH_2$ (15), $C_6H_6+D_2=C_6H_5D+HD$ (21). The resultant (BE) are mean values of the reactive region of the (C)-surface. A multiple bond of (II) increases the strength of the (II)-bond with respect to the (C)-surface. The formation of a tricyclic or aromatic ring in addition to a simple or double bond, for example, yields a (II)-(C) bond that is stronger than that of (II). With a slight variation in the activity of the (C), as well as with a transition from the one metal to the other,

also the corresponding (BE) varies to a relatively small extent. This indicates that the reaction of organic compounds with (II) on the (C)-surface apparently proceeds at the points of maximum (BE). In conclusion, the scientist V. N. Kondrat'yev is mentioned. There are 1 table and 24 references, 9 of which are Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut organicheskoy khimii im. N. D. Zelinskogo (Academy of Sciences of the USSR, Institute of Organic Chemistry imeni N. D. Zelinskiy)

SUBMITTED: March 6, 1958

C/005/60/000/007/001/004
F031/F004

AUTHOR: S. L. Kiperman

TITLE: Some characteristics and principles in realizing catalytic processes

PERIODICAL: Hua Hsüeh T'ung Pao, no. 7, 1960, 1-7

TEXT: The article was written by a Soviet catalysis expert during a visit to China. A general introduction to the principles of catalysis and catalytic processes is given and various theories of catalysis are reviewed. Catalysis is defined and applications of catalysis in industries are listed. Characteristics of catalysis are as follows: (1) Positive catalysis expedites chemical reactions, lowers reaction temperature, and reduces the fuel consumption of equipment. (2) Catalysis neither induces a chemical reaction nor changes the chemical equilibrium thermodynamically. (3) Catalysts do not change in reactions they catalyze. (4) Catalysis expedites both positive and reverse reactions. (5) Catalysis has high selectivity. (6) By nature most elements and their salts can catalyze. (7) Catalysis may be conducted in the various physical states

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Some characteristics and ...

matter. (8) Each kind of catalyst has an optimum specific catalyzing condition. (9) Catalysis may be either single phase or of multiphase. (10) Solid catalysts may be used in different forms as conditions dictate. (11) Activity of a solid catalyst is closely related to the conditions under which it is prepared or processed. (12) The catalyst carrier affects directly or indirectly the activity of the catalysts. (13) Solid catalysts may be poisoned by minute amounts of certain elements or compounds. (14) Activity, dispersion, and surface area are closely related to the crystal structure of the catalyst. (15) Different catalysts show different effects in a single process. (16) Actual conditions determine the use of catalysts — single phase or multiphase. (17) In some cases catalysis requires a series of supplementary procedures to attain completion. (18) Catalysis is divided into two major processes — electron exchanging and particle exchanging. (19) The basic objective of catalysis is to control and direct reactions in a desired direction. The author divides the history of the development of catalytic theories into 4 stages and concludes that although much has been developed, catalysis is still in its infancy. Further development is desired. The paper was translated into Chinese by Chang Hsui-

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Some characteristics and ...

C/005/60/000/007/001/004
F031/F004

yü (1728/2037/3768) and Jen Hsin-min (0117/2450/3046).

ASSOCIATION: Institute of Organic Chemistry, Academy of Sciences USSR

Card 3/3

KIPERMAN, S.L.; BALANDIN, A.A.

Energies of the bonds between nickel, iron, platinum, and palladium catalysts and the atoms of elements in organic compounds. Probl. kin. i kat. 10:344-350 '60. (MIRA 14:5)

1. Institut organicheskoy khimii AN SSSR.
(Chemical bonds) (Catalysts)

COVERAGE: The articles in this collection were read at the conference on the Physics and Physical Chemistry of Catalysis organized by the Otdel khimicheskikh nauk AN SSSR (Section of Chemical Sciences, Academy of Sciences USSR) and by the Academic Council on the problem of "the scientific bases for the selection of catalysts." The Conference was held at the Institut fizicheskoy khimii AN SSSR (Institute of Physical Chemistry of the AN USSR) in Moscow, March 20-23, 1958. Of the great volume of material presented at the conference, only papers not published elsewhere were included in this collection.

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S/195/61/002/005/021/027
E030/E185

AUTHORS: Kiperman, S.L., and Davydova, I.R.

TITLE: Kinetics of the para-ortho hydrogen conversion, and use of this reaction in studying the mechanism of catalytic processes

PERIODICAL: Kinetika i kataliz, v.2, no.5, 1961, 762-772

TEXT: The para-ortho hydrogen conversion was studied experimentally, using deuterium and the isotope exchange to study the reaction at temperatures from 21 to 86 °C and pressures from 23 to 105 mm Hg, over a reducing catalyst, nickel, which had been preheated in atmospheres of varying oxygen concentration. The order of the reaction is 0.6, and the energy of activation about 6.8 kcal/mole. As the concentration of oxygen during the pretreatment of the catalyst increases, the energy of activation increases at first, but then oscillates around a stable value. Similar experiments were conducted on other catalytic processes, as follows. Para-ortho and ortho-para conversion was studied on synthetic polymers with known catalytic activity and semiconducting properties. Those chosen were: 1) ash-free active charcoal

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Kinetics of the para-ortho hydrogen...

(as reference standard); 2) polyvinylmethylketone, heated in nitrogen at 1000 °C; 3) polyparadiethinylbenzol heated to 600 °C; and 4) the same, heated to 500 °C. The decomposition of formic acid on these was observed, and it occurred quickly, although hydrogen was sorbed very slowly, and only about 10% monolayer coverage was obtained, thus indicating surface non-uniformity for the catalysis. The greatest activity was for specimen 4, and this also had the strongest electron-paramagnetic-resonance signal, thus correlating the unpaired hydrogen spins with catalytic activity in a magnetic process. Dehydration of alcohols on nickel was also studied, by observing the conversion of pure parahydrogen (produced on charcoal at -196 °C) on nickel at room temperature to proceed very rapidly to the equilibrium ortho-para ratio, but to hardly proceed at all in the absence of the catalyst. Since this conversion process is also involved in the dehydration of alcohols, it follows this cannot be the stage limiting the reaction rate. Other possible applications would be in dissociative adsorption of hydrocarbons, whose possibilities would be indicated by an increase in the velocity of ortho-para

Kinetics of the para-ortho hydrogen...

contributions in this field.
There are 4 figures, 1 table and 41 references: 19 Soviet-bloc, 2 Russian translations from non-Soviet publications, and 20 non-Soviet-bloc. The four most recent English language references read as follows:

Ref.26: R.C. Campbell, S. Thomson, Trans. Faraday Soc., v.57, 279, 1961.
Ref.28: P.H. Lewis, J.Phys.Chem., v.64, 1103, 1960.
Ref.34: D. Eley, H. Imokuchi, M. Willis, Disc. Faraday Soc., v.28, 66, 1959.
Ref.37: R. Golway, C. Kemball, Trans. Faraday Soc., v.55, 1959, 1959.

ASSOCIATION: Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR
(Institute of Organic Chemistry imeni N.D. Zelinskiy, AS USSR)

Card 4/4

KIPERMAN, S.L.; NIKOLAYEVA, N.V.

Application of the principle of the recycling flow method to the study of the kinetics of heterogeneous catalytic reactions in the liquid phase. Kin.i kat. 2 no.6:936-939 N-D '61.
(MIRA 14:12)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.
(Catalysis)

KIPERMAN, S.L. (Moskva)

Relation between the rate constants on heterogeneous catalytical reactions and bond energies. Zhur. fiz. khim. 35 no.1:181-188 Ja '61. (MIRA 14:2)

1. Akademiya nauk SSSR, Institut organicheskoy khimii im. N.D. Zelinskogo.

(Chemical reaction, Rate of) (Catalysis)
(Chemical bonds)

KIPERMAN, S.L.

Kinetics of heterogeneous catalytic reactions in the liquid phase studied by gradientless methods. Kin.i kat. 3 no.4:520-522 Jl-Ag '62. (MIRA 15:8)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.
(Catalysis)

KIPERMAN, S.L.; NIKOLAYEVA, N.V.; DAVYDOVA, I.R.

Kinetics and mechanism of the dehydrogenation of isopropyl alcohol in the liquid phase. Trudy Inst.khim.nauk AN Kazakh. SSR 8:3-20 '62. (MIRA 15:12)
(Isopropyl alcohol) (Dehyrogenation)

DAVYDOVA, I.R.; KIPERMAN, S.L.; NIKOLAYEVA, N.V.

Kinetics of isopropyl alcohol dehydrogenation in the liquid phase. Part 1. Kin. i kat. 4 no.4:605-613 Jl-Ag '63.
(MIRA 16:11)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.

KIPERMAN, S.L.; NIKOLAYEVA, N.V.; DAVYDOVA, I.R.

Kinetics of isopropyl alcohol dehydrogenation in the liquid phase. Part 2. Kin.i kat. 4 no.5:723-735 S-O '63. (MIRA 16:12)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.

SLINKIN, A. A.; LEVI, G. I.; KIPERMAN, S. L.

Calculation of the energy of bonds between the catalyst surface and the reacting atoms of organic molecules (on the article by V. Kh. Matiushenko "Theory of catalyst selection and the bond energy"). Zhur. fiz. khim. 37 no. 3:712-715 Mr '63. (MIRA 17:5)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

KIPERMAN, S. L.

"The investigation on intermediate surface compounds occurring in elementary stages of heterogeneous catalytic reactions."

report submitted to 3rd Intl Cong on Catalysis, Amsterdam, 20-25 Jul 64.

Inst of Organic Chemistry im Zelinskiy, AS USSR, Moscow.

KIPERMAN, Saveliy L'vovich; EYDYS, Ya.T., doktor khim. nauk, otv. red.; FEDOROVICH, R.M., red.

[Introduction to the kinetics of heterogeneous catalytic reactions] Vvedenie v kinetiku geterogennykh kataliticheskikh reaktsii. Moskva, Izd-vo"Nauka", 1964. 606 p. (MIRA 17:7)

KIPERMAN, S.L.; KAPLAN, G.I.

Kinetics of hydrogenation in a gradientless system. Kin. i kat. 5 no.5:888-897 S-O '64. (MIRA 17:12)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.